



IN THE U.S. PATENT AND TRADEMARK OFFICE

April 7, 2004

Applicant(s): Isaac M. DANIEL et al.

For: GAS FLOW METHOD FOR DETECTION OF LOCAL PREFORM DEFECTS BASED
ON STATISTICAL ANALYSIS

Serial No.: 10/611 318

Group: 2856

Confirmation No.: 4014

Filed: July 1, 2003

Examiner: Unknown

Atty. Docket No.: NU052

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

FIRST CLASS MAILING CERTIFICATE

Sir:

I hereby certify that this correspondence is being deposited
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P.O. Box 1450, Alexandria, VA 22313-1450, on April 8, 2004.


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enclosures listed thereon



PATENT APPLICATION

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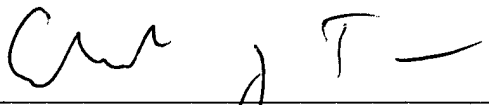
INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the provisions of Rules 1.97(b)(3) and 1.98, enclosed herewith is Form PTO-1449 and the references cited thereon. Accordingly, further comment at this point in time should not be necessary.

Further consideration is respectfully solicited.

Respectfully submitted,



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U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Country	Class	Sub Class	Translation Y/N

OTHER DOCUMENTS (Including Author, Title, Date, Pages, Etc.)

AA	Dimension prediction and control for resin transfer molding process; Proceedings of SAMPE Conference; pp. 1-14; May 11-15, 2003; C. Dong et al.
AB	Gas assisted real-time assessment of whole-field permeability profile of fiber preform for liquid composite molding processes; Proceedings of SAMPE Conference; pp. 1-13; May 11-15, 2003; C. Zhang et al.
AC	Optimal control of accelerator concentration for resin transfer molding process; International Journal of Heat and Mass Transfer, vol. 46, pp. 3747-3754, 2003, S.K. Kim et al.
AD	Gas Flow Method for Detecting Local Preform Defects by Inverse Estimation of Space-varying Permeability; Journal of Composite Materials, vol. 37, no. 15, pp. 1367-1383, 2003, S.K. Kim et al.
AE	Determination of three-dimensional permeability of fiber preforms by the inverse parameter estimation technique; Composites: Part A, vol. 34, pp. 421-429, 2003, S.K. Kim et al.
AF	Determination of In-Plane Permeability of Fiber Preforms by the Gas Flow Method Using Pressure Measurements; Polymer Composites, vol. 24, no. 1, pp. 34-44, 2003, S.K. Kim et al.
AG	Determination of permeability of fibrous medium considering inertial effects; Int. Comm. Heat Mass Transfer, vol. 29, no. 7, pp. 879-885, 2002, S.K. Kim et al.
AH	Detection of local preform defects by gas flow method and statistical analysis; Advanced Composites Letters; vol. 12, no. 3, pp. 109-114, 2003, S.K. Kim et al.
AI	In-Situ quality control of RTM preforms by the gas flow method; 48th International SAMPE Symposium, pp. 1702-1713, May 11-15, 2003.

EXAMINER	DATE CONSIDERED
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	AJ	Solution to inverse heat conduction problem in nanoscale using sequential method; Numerical Heat Transfer, Part B; vol. 44; pp. 439-456, 2003, S.K. Kim et al.
	AK	In-situ measurement and monitoring of fiber preform permeability for liquid composite molding; Proceedings of the 45th International SAMPE Symposium, vol. 45, p. 2053, 2000, Z. Liang et al.
	AL	Gas flow method for detection of local preform defects based on statistical analysis; Proceedings of ICCM 14 Conference; pp. 1-8 July 14-18, 2003; S.K. Kim and I.M. Daniel.
	AM	New set-up for measurement of permeability properties of fibrous reinforcements for RTM; Composites: Part A, vol. 33, pp. 959-969, 2002, K. Hoes et al.
	AN	Permeability Measurement and Flow Simulation Through Fiber Reinforcement; Polymer Composites, vol. 17, no. 1, pp. 34-42, February 1996, R. Gauvin et al.
	AO	A control volume finite-element method for two-dimensional fluid flow and heat-transfer; Numerical Heat Transfer, vol. 6, pp. 245-261, 1983, B.R. Baliga et al.
	AP	A gas flow method for determination of in-plane permeability of fiber preforms; Polymer Composites, vol. 22, no. 1, pp. 47-56, 2001, M.K. Um et al.
	AQ	Statistical characteristization of fiber permeability for composite manufacturing; Polymer Composites, vol. 21, no. 6, pp. 996-1006, Dec 2000, R. Pan et al.

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